

## DIGITAL BUS MONITOR INTEGRATED CIRCUITS

ABSTRACT OF THE INVENTION

5       A digital bus monitor used to observe data on a  
bus (14, 16, 18) connecting multiple integrated circuits  
(10, 12) comprises a memory buffer (30), bypass register  
(34), test port (38) and output control circuits (42, 46)  
controlled by an event qualifying module (EQM) (32). In  
response to a matching condition the EQM (32) may perform  
a variety of tests on incoming data while the integrated  
circuits (10, 12) continue to operate at speed. A  
10   plurality of digital bus monitors (20, 22) may be cascaded  
for observation and test of variable width data buses and  
variable width signature analysis.